

WHAT IS CLAIMED IS:

1. An exercise apparatus, comprising:

a frame having a base designed to rest upon a floor surface, and a first end, and an opposite, second end;

5 a left crank and a right crank, wherein each said crank is rotatably mounted on the frame proximate the first end;

a left guide and a right guide, wherein each said guide is connected to the frame proximate the second end; and

a left foot linkage and a right foot linkage, wherein  
10 each said foot linkage includes a respective foot engaging portion, and each said foot linkage is movably interconnected between a respective crank and a respective guide in such a manner that each said foot engaging portion is movable through a generally elliptical path, and rotation of each said crank is directly linked  
15 to vertical displacement of each said foot engaging portion, and each said foot linkage includes a decoupling means for decoupling each said foot engaging portion from a respective crank, and a linking means for separately linking horizontal displacement of a respective foot engaging portion to rotation of a respective crank.

20 2. The exercise apparatus of claim 1, wherein said left crank and said right crank rotate about a common crank axis and cooperate to define a crank diameter, and at least a portion of each said foot engaging portion is movable to a position less than one-half said crank diameter from said crank axis.

25 3. The exercise apparatus of claim 2, wherein each said foot engaging portion is movable through a substantially elliptical path about said crank axis.

4. The exercise apparatus of claim 1, wherein each said guide is a rocker link pivotally coupled to said frame, and each said linking means includes a drawbar which is pivotally interconnected between a respective rocker link and a respective crank, and a forward portion of each said foot engaging portion is pivotally coupled to a respective rocker link.

5. The exercise apparatus of claim 4, wherein each said rocker link pivots about a common pivot axis relative to said frame, and each said drawbar is connected to a respective rocker link at a first distance from said pivot axis, and each said foot engaging portion is connected to a respective rocker link at a second, relatively greater distance from said pivot axis.

6. The exercise apparatus of claim 4, wherein said left crank and said right crank rotate about a common crank axis and cooperate to define a crank diameter, and at least a portion of each said foot engaging platform is movable to a position less than one-half said crank diameter from said crank axis.

7. The exercise apparatus of claim 6, wherein each said foot engaging platform is movable through a substantially elliptical path about said crank axis.

8. The exercise apparatus of claim 1, wherein each said decoupling means includes a floating link pivotally connected to a respective crank, and each said foot engaging portion is affixed to a rail having a forward portion connected to a respective guide, and a rearward portion supported by a respective floating link, and each said linking means includes a drawbar which is pivotally interconnected between a respective crank and a respective rail.

9. The exercise apparatus of claim 1, wherein each said foot engaging portion is movably mounted on a respective guide, and a rearward portion of each said guide is supported by a respective roller rotatably mounted on a respective crank, and each said foot  
5 linkage includes a drawbar which is pivotally interconnected between a respective crank and a respective foot engaging portion.

10. The exercise apparatus of claim 1, wherein each said guide is a respective rocker link, and each said foot engaging portion has a forward portion pivotally connected to a respective  
10 rocker link, and each said foot linkage includes a rail having a rearward portion pivotally connected to a respective crank, and a forward portion connected in telescoping fashion to a rearward portion of a respective foot engaging portion, and each said foot linkage includes a drawbar which is pivotally interconnected  
15 between a respective crank and a rocker link.